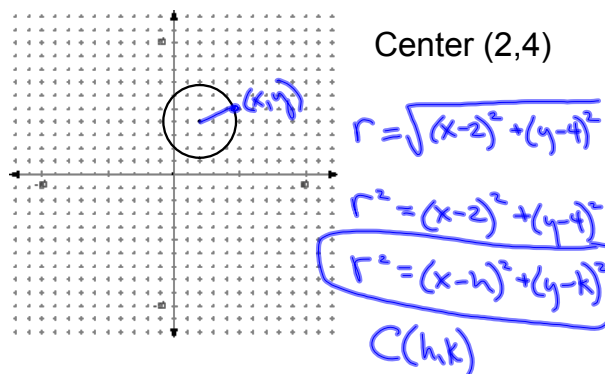


10-7  
Write and Graph  
Equations of Circles



Write the equation of a circle with:  
C(3, -3) and  $d = 12$   $r = 6$

$$r^2 = (x-h)^2 + (y-k)^2$$

$$36 = (x-3)^2 + (y+3)^2$$

Write the equation of a circle with:  
C(-12, -1) and  $r = 8$

$$64 = (x+12)^2 + (y+1)^2$$

Write the equation of a circle with:  
Diameter endpoints  $(-3, -2)$  and  $(9, 4)$

Midpoint

$C(3, 1)$

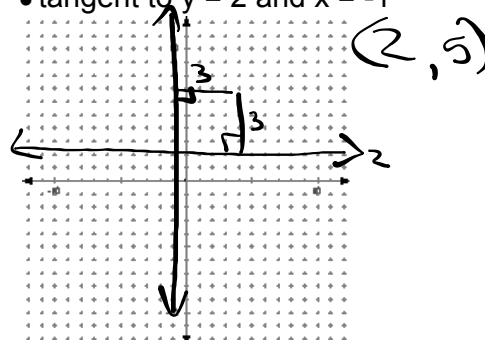
$$r^2 = (x-3)^2 + (y-1)^2$$

$$r^2 = 36 + 9$$

$$45 = (x-3)^2 + (y-1)^2$$

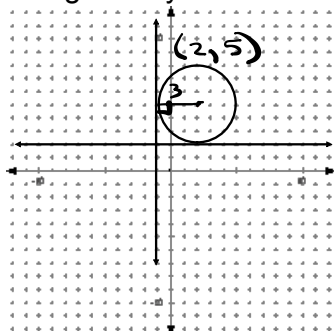
Write the equation of a circle with:

- Center in quadrant I
- $d = 6$   $r = 3$
- tangent to  $y = 2$  and  $x = -1$



Write the equation of a circle with:

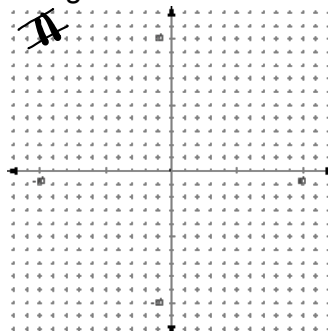
- Center in quadrant I
- $d = 6$   $r = 3$
- tangent to  $y = 2$  and  $x = -1$



$$9 = (x-2)^2 + (y-5)^2$$

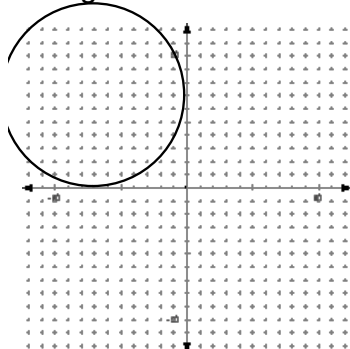
Write the equation of a circle with:

- Center in quadrant II
- $r = 7$
- tangent to both the x-axis and y-axis



Write the equation of a circle with:

- Center in quadrant II
- $r = 7$
- tangent to both the x-axis and y-axis



$$C(-7, 7)$$

$$r = 7$$

$$49 = (x+7)^2 + (y-7)^2$$

Write the equation of a circle with:

$C(4, 2)$  and a point on the circle  $(8, -1)$

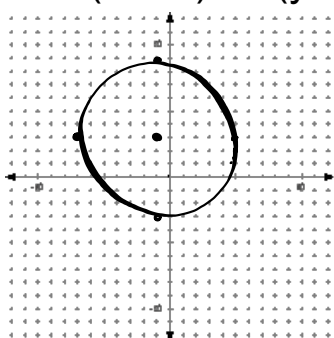
$$r^2 = (x-4)^2 + (y-2)^2$$

$$r^2 = 25$$

$$25 = (x-4)^2 + (y-2)^2$$

Graph the following circle:

$$36 = (x + 1)^2 + (y - 3)^2$$

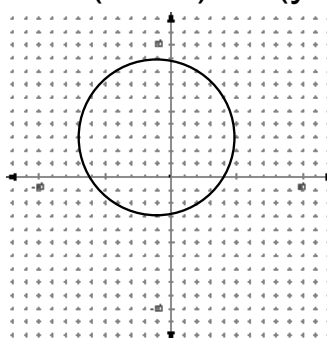


$$C(-1, 3)$$

$$r = 6$$

Graph the following circle:

$$36 = (x + 1)^2 + (y - 3)^2$$



$$x^2 + y^2 = 16$$

What is the center?

(0,0)

What is the radius?

4

HW  
p702-703

3, 4, 10, 13, 17-23odd 31

Dave